

The methyl bromide issue, ed. C. H. Bell, N. Price & B. Chakrabarti, John Wiley & Sons, Chichester, 1996, xii + 400 pp., price UK £65.00.
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Methyl bromide was placed on the list of ozone-depleting chemicals at a meeting in Copenhagen in November 1992, and despite vigorous campaigning for its continued availability to agriculture and the stored commodity fumigation industry most of its uses were scheduled to be phased out by 2010 at the Montreal Protocol meeting last year.

Approximately 75 000 tonnes of chemical were manufactured in 1992, of which 96% was sold for use in pest control. It is estimated that well over half of the chemical used for fumigation is subsequently released into the atmosphere. Is this another example of the chemical and pest control industries fighting a rearguard action to prolong the use of a persistent and damaging pollutant at the expense of the environment? Rather than attempting to convince the reader of the arguments for or against continued use, the editors of this book have aimed to inform the debate by inviting international experts in atmospheric chemistry, environmental analysis, agriculture and food storage practice to contribute articles setting out its scientific background.

On matters related to current uses of methyl bromide in food storage and quarantine the book draws heavily on contributors from the UK Ministry of Agriculture, Fisheries and Food Central Science Laboratory at Slough. The four chapters covering the chemistry and mammalian toxicology of the compound, its effects on target organisms, uses in storage practice, and alternative methods of preventing infestation and spoilage are written by scientists with established reputations in the fields of fumigation and food storage practice from this institution. What makes the book particularly useful is the juxtaposition of these chapters with contributions from leading experts in atmospheric ozone depletion and environmental analysis (in both the chemical and political sense). The first of these contributions reviews the methods by which mathematical analysis of the sources (both natural and man-made) and sinks of methyl bromide in the atmosphere can be used to draw up a mass balance and derive estimates of the likely impact of withdrawing methyl bromide on stratospheric concentrations of ozone-depleting chemicals. The second provides an account of the ozone-depletion phenomenon, its discovery and predicted long-term consequences, and the local legislation and multilateral agreements on the phase-out of ozone-depleting chemicals which have provided one of the great success stories of international diplomacy in recent years.

This is the first volume in a new series of books on Agrochemicals and Plant Protection launched by John Wiley which has evolved from the well-established series 'Progress in Pesticide Biochemistry and Toxi-

cology' edited by Hutson and Roberts and first published in 1980. The publishers describe the new series as intended to be wide-ranging in scope, covering scientific, regulatory and public perception issues related to the use of chemicals in agriculture. Despite the fact that the first volume deals with an agrochemical with an uncertain future, this broader approach to the issues confronting the pesticide industry is to be welcomed.

G. le Patourel

Progress in pesticide biochemistry and toxicology, Volume 9: Environmental behaviour of agrochemicals, ed. T. R. Roberts & P. C. Kearney, John Wiley & Sons Ltd, Chichester, 1995, 407 pp., price UK £75.00.
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The editors of Volume 9 of the series on Progress in Pesticide Biochemistry and Toxicology are congratulated for continuing the high standard of clarity and usefulness set by previous volumes. This book has been available for quite a long time. There are eight chapters and the first, describing methods of estimating physicochemical properties of compounds, makes a useful start to the topic of the environmental behaviour of agrochemicals. There follow five well-written chapters on the redistribution of compounds within soils. The second chapter is a review, commissioned by the agrochemical industry trade association GIFAF/ECPA, of recommended approaches to assess pesticide mobility in soils. Some might dispute that the Irish potato famine is an example from recent history, as stated in the section on methods of assessing mobility in soil. There is a review of the influence of soil properties on pesticide mobility. The chapter on leaching models and their use for management purposes well describes the models but does not address their management uses. Perhaps this is because of the paucity of serious management applications in practice. Pesticide run-off and volatilisation are well and thoroughly described. However, the five chapters describing behaviour in soils inevitably cover subjects about which too much has already been published. Perhaps a five-year moratorium on reviews of pesticide behaviour in soil should be declared unless future authors take an original approach. Although there is quite a lot written and said about biosensors for the detection of pesticides, it is nevertheless very difficult to find out how well they really work. The coverage of biosensors in the present volume is one of the most useful accounts that I have read. The closing chapter deals soundly with analytical techniques and procedures for the determination of pesticides in water. This is another volume that is a pleasure to consult, read and own.

P. Nicholls